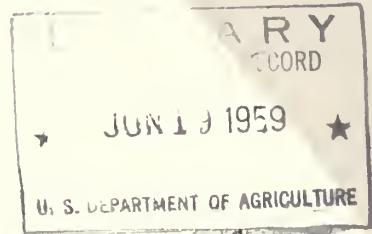


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MARKETING RESEARCH REPORT NO. 331



the

CHANGING ROLE

of the

FRUIT AUCTIONS

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U. S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
MARKETING RESEARCH DIVISION

PREFACE

This report on the changing role of the fruit auctions is one part of a study of the changing structure of the marketing system for fruits and vegetables in the United States. Later reports will deal with other aspects. The assistance of the officers of the fruit auctions who supplied much of the information in this report is gratefully acknowledged. This is part of a program of research designed to broaden our understanding of the food marketing system and thereby assist in making it more efficient.

Most of the data for 1937 and earlier years are taken from Terminal Fruit Auctions as Marketing Agencies for Farmers' Cooperatives by Kelsey B. Gardner, Farm Credit Admin. Bul. 29, Nov. 1938.

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HIGHLIGHTS

Fruit auctions grew up with the modern produce marketing system. In the 1920's and 1930's they served as the economic center of the fruit marketing system in the terminal markets. In 1930, the auctions sold over three-fourths of the citrus and western deciduous fruits received in the cities with auctions, these cities being the major markets of the Northeast and Midwest. The auctions provided a focus for the forces of supply and demand, established prices, and distributed fruit in the major markets and to most of the secondary markets nearby.

Changes in the pattern of fruit marketing beginning in the late thirties and accentuating since World War II have altered the role and importance of the fruit auctions.

The auction cities of the Northeast and Midwest are handling a smaller proportion of the national fruit and vegetable supply now than they were 20 years ago for two major reasons: The number of cities having auctions has declined from 12 to 9; and population and markets in the South and West have grown faster than in the Northeast and Midwest.

Sharp increases have occurred in direct buying by retailer groups--both corporate and voluntary chains--and, to some extent, by service wholesalers and other types of wholesale handlers. The number of retailer groups large enough to take advantage of direct buying has grown until they now handle a major portion of the retail food business.

More and more, the fruit auctions are becoming distributors of higher-priced specialty products rather than mass distributors of more standardized fruits.

THE CHANGING ROLE OF FRUIT AUCTIONS

By Alden C. Manchester, agricultural economist
Market Organization and Costs Branch
Agricultural Marketing Service

The terminal fruit auctions have stood at the crossroads of the marketing system for 40 years or more. Located in the major terminal markets of the country, they formed the hub of the market in the economic sense, bringing together the forces of supply and demand, establishing price levels, and distributing fruit to markets large and small. Shippers throughout the country send their fruit to the auctions where it is inspected by potential buyers and sold to the highest bidder.

Although the first auction markets date back well into the nineteenth century, their development into the major role in fruit marketing came during the early decades of the present century. By the 1920's the produce marketing system had assumed much of its present shape and the volume of fruit handled by the auctions--and probably their influence on prices, and distribution--reached a peak. Since the early 1930's, the changing pattern of fruit marketing has altered the role and importance of the fruit auctions.

Auction selling was--and continues to be--concentrated in fruits from the distant, specialized production areas. While some tomatoes, watermelons, and cantaloups have been sold at auction, most of the sales have always been of citrus and deciduous fruits from the West Coast and citrus from Florida, plus a fairly substantial volume of imported fruits, the latter mostly on the New York market. Significant quantities of tomatoes are still sold on the New York and Boston auctions.

At the present time there are fruit auctions in nine cities; in order of volume handled: New York, Chicago, Philadelphia, Boston, Detroit, Pittsburgh, Cleveland, St. Louis, and Cincinnati. At the present time, there is one auction in each city except in New York where there are two. An auction in Baltimore closed in 1956, those in Minneapolis and St. Paul closed during World War II, and the one in New Orleans in 1936. Auctions also operated in Toledo, Newark, Kansas City, Los Angeles, and Buffalo during various periods in the 1920's and 1930's, but none lasted for very many years. In earlier periods, particularly during the twenties, there were two or more auctions in a number of cities. In 1923, for instance, there were 22 different auctions operating in 14 cities, and in 1931, 20 auctions in a somewhat different group of 14 cities.

VOLUME HANDLED BY AUCTIONS

The total volume handled by terminal fruit auctions increased steadily from 58 thousand carlots in 1919 to 160 thousand in 1929. Through the 1930's the volume declined to about 110 thousand carlots at the beginning of World War II. Auction sales of bananas ceased during the war and have not been

resumed. Since the war, volume has declined somewhat further--to 76 thousand carlots (which contained, to be sure, somewhat larger loads per car) in 1950, and about 55 thousand in 1957.

Total fresh market sales of fruit in recent years have been at approximately the same level as in the middle thirties, although there was an increase during and immediately after World War II and a subsequent decline due in large part to the increase in the amount being processed.

The share of total fruit sales handled by fruit auctions has declined fairly consistently since 1936 (fig. 1). Auction sales of citrus declined

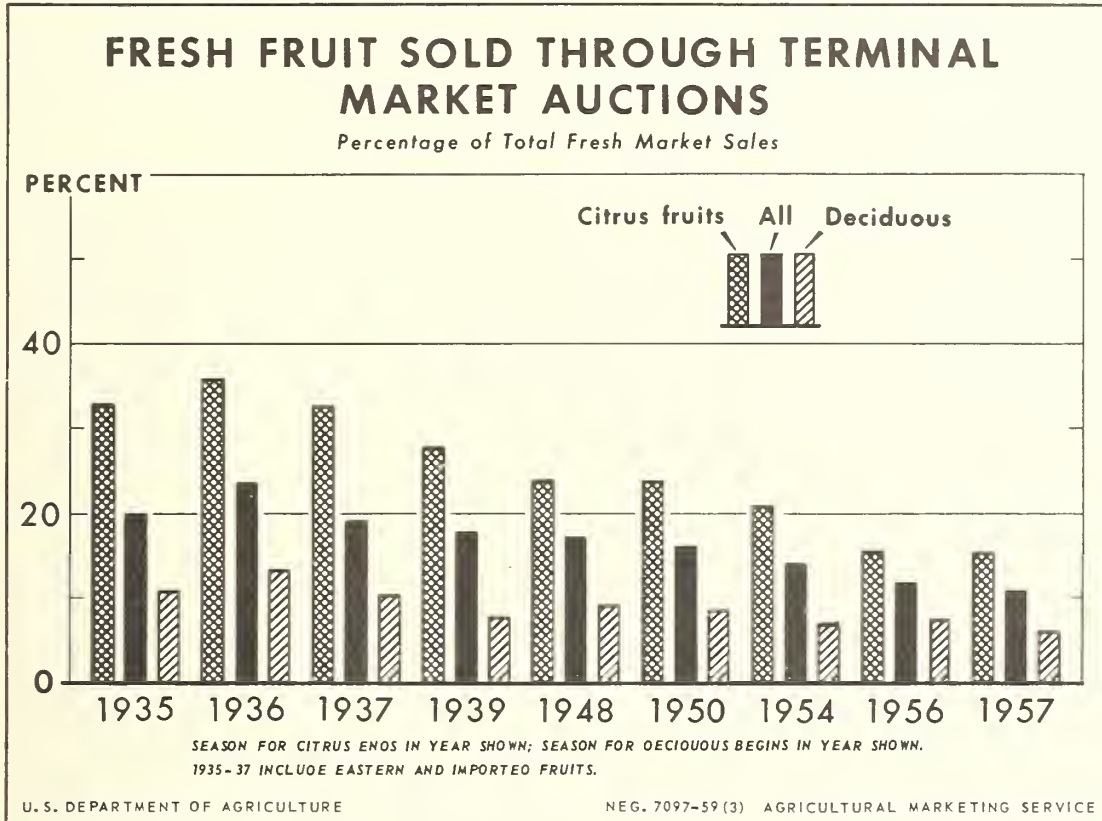


Figure 1

from 36 percent of fresh market sales during the 1935-36 season to about 16 percent in the 1955-56 and 1956-57 seasons. Sales of deciduous fruit through the auctions declined from 13 to 6 percent of fresh market sales over the same period.

Several factors contributed to this decline in the relative importance of fruit auctions. One was the decline in the proportion of the national fruit and vegetable supply received in the auction cities. Between 1936 and 1957, total unloads of fruits and vegetables in cities with auctions declined from 74 to 55 percent of the volume received in 28 major markets. About half of this loss was due to the closing of auction markets in Baltimore, New Orleans,

and Minneapolis-St. Paul, which shifted the receipts in these three cities (7 percent of the 28-market total in 1957) from the auction to the non-auction group. The remainder was caused by an increase of approximately 70 percent in the produce tonnage received in the 16 non-auction cities, while that of the 9 auction cities remained virtually unchanged. Sharp increases in population and markets in the South and West account for a part of this increase in the non-auction group.

A second factor--not totally unrelated to the first--is the structural change which has revolutionized the food marketing system during the past 20 years. The growth of large-scale retailing organizations--both corporate and voluntary or cooperative chains--has brought about a marked increase in the direct buying of fruits and vegetables from shipping point, thus bypassing the traditional terminal market and the auctions. In this way, much of the fruit moving into consumption which might formerly have gone through the auctions no longer does so. This development will be discussed further in a later section.

The growth in direct buying is not the whole explanation, however. The auctions have been handling a declining share of the terminal market business (exclusive of direct purchases). In 1936, about 20 percent of the volume of fruits and vegetables passing through the terminal markets (excluding that bought directly by chainstores) was sold through the auctions in the 9 cities which still have auctions. By 1957, the proportion sold by auctions had dropped to approximately 15 percent of the terminal volume. A relatively small part of this decline--1 to 2 percentage points--can be attributed to the decline in the relative importance of fruit in the total sales of fruits and vegetables.

The fruit auctions were developed as sellers of commodities received by rail. Many are located in railroad terminals. Some auctions sell nothing received by truck and others sell relatively small quantities of certain commodities which arrive by truck. In general, truck receipts are of minor importance on the auctions. The shift from rail to truck shipment of fruits and vegetables has meant that a declining share of the total movement to market is potentially available for auction sale. Particularly in the case of commodities such as Florida citrus, where there has been a very marked change to truck shipment since World War II, the preference of the auctions for rail receipts may well have been a factor in the declining proportion of sales through the auctions.

COMMODITIES HANDLED

In 1956, approximately 78 percent of the dollar value of sales through the 11 fruit auctions then in operation was in domestic citrus and deciduous fruits. Most of the remainder was in tomatoes, watermelons, and deciduous fruits from South America.

During the 1956-57 season, (most of which is in calendar 1957), approximately 44,000 carlots of domestic fruits were sold through the 11 fruit auctions, 65 percent of which was citrus fruit. Auction sales accounted for 52 percent of the unloads of citrus fruit in the 10 auction cities and 22 percent of the receipts of deciduous fruits (table 1).

Table 1.--Sales of major fruits through auctions, by commodities, 1956-57 season

Commodity	Auction sales	
	Percentage of total	Percentage of unloads
	auction sales of	in auction cities
	domestic fruit	
	Percent	Percent
Citrus:		
California oranges.....	22	77
California lemons.....	10	75
Florida grapefruit.....	15	51
Florida tangerines.....	4	49
Florida oranges.....	14	42
Total 3/.....	65	52
Deciduous:		
California nectarines.....	1	100 1/
California apricots.....	1	100 1/
Northwest cherries.....	1	100 1/
Washington apricots.....	2/	100 1/
California plums.....	6	74
California peaches.....	1	69
California pears.....	4	65
Northwest pears.....	5	61
Northwest apples.....	5	52
California grapes.....	11	35
Northwest plums and prunes.....	1	34
Total 4/.....	35	22

1/ Virtually all; auction sales include some from mixed loads which are not reported by commodity in unloads.

2/ Less than 0.5 percent.

3/ Unloads include other citrus.

4/ Unloads include other deciduous fruits and berries except pineapples and bananas.

About three-fourths of the California oranges and lemons sold in these cities, half of the Florida grapefruit and tangerines, and 42 percent of the Florida oranges went through the auctions. In the case of some of the minor deciduous fruits--California and Washington apricots, Northwest cherries, and California nectarines--virtually all of the sales were made through the auctions in markets having such facilities. From 60 to 75 percent of California peaches, pears, plums, and Northwest pears received in the auction cities were

sold through the auctions; about half of the Northwest apples; approximately a third of the California grapes and Northwest plums and prunes.

The auctions are handling a declining share of the volume in the markets where they operate. In 1930 they sold 84 percent of the rail and boat receipts of citrus; in 1937, 77 percent; and in 1956-57, 70 percent. During this period, truck shipments--of which only a small proportion are sold through auctions--increased severalfold, so the auctions share of total receipts declined to 52 percent in 1956-57. The comparable figures for deciduous fruits are 54 percent of rail and boat receipts in 1930, 48 percent in 1937, and 41 percent in 1956-57. ^{1/}

The proportion sold through the auctions has declined since 1939 for every major domestic fruit except California apricots. Sales of almost all fruits through the auctions declined during World War II, chiefly because the existence of price ceilings made price determination a much simpler matter. For some fruits such as Florida oranges, the volume handled through auctions never recovered entirely after the war and has declined steadily since about 1950 (figs. 2 and 3). Auction sales of California Valencia oranges and lemons and

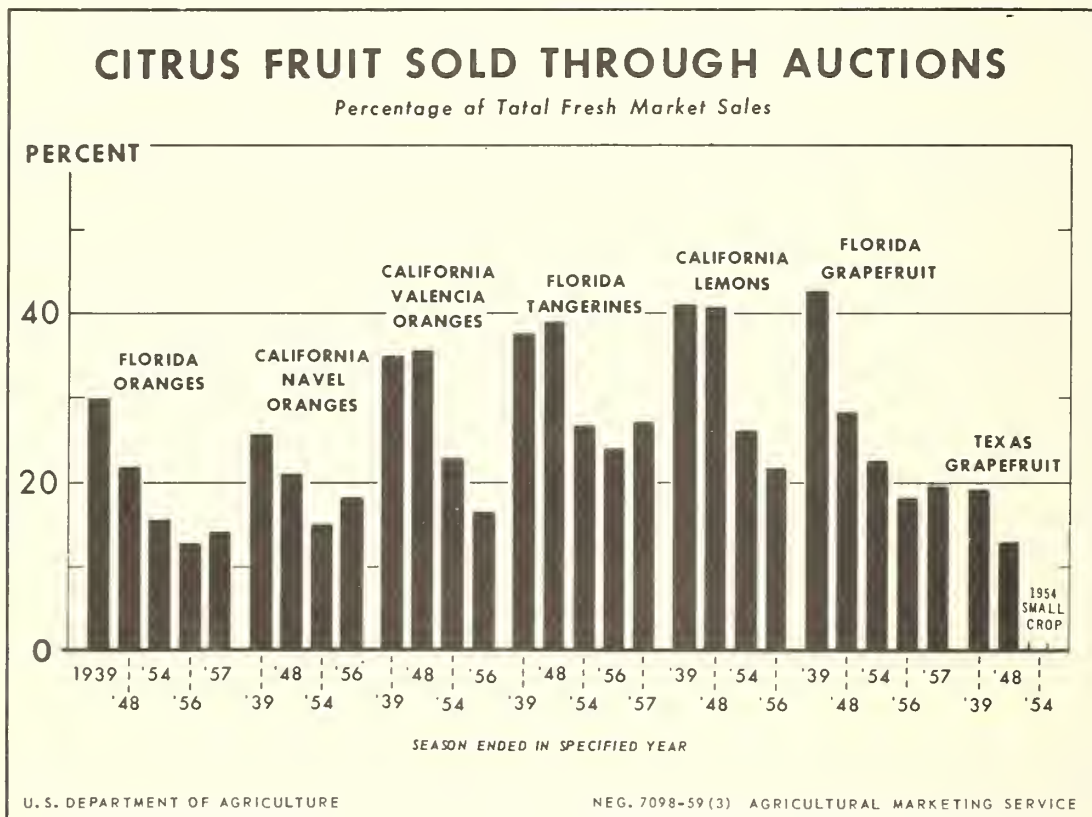


Figure 2

^{1/} The 1930 and 1937 figures include imported fruit, mostly deciduous, in unknown amounts.

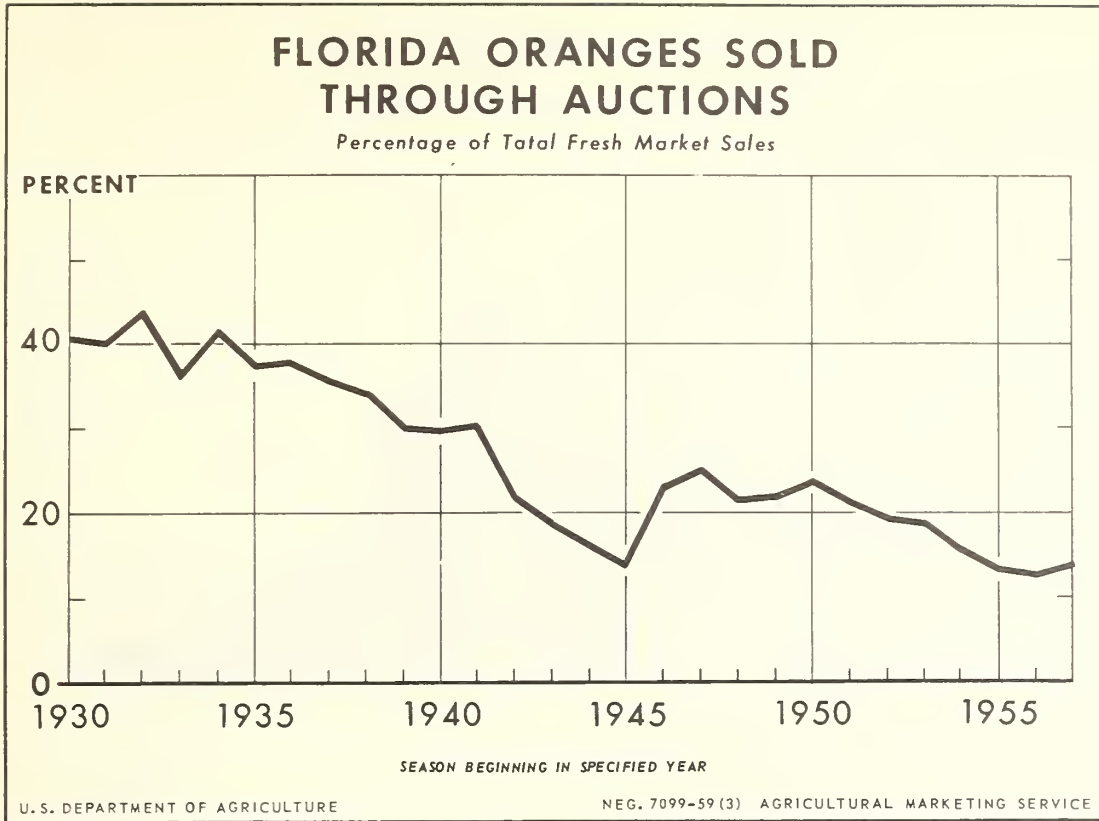


Figure 3

of Florida tangerines did recover to 1939 levels following World War II, but have subsequently declined along with those of other commodities. For the last three seasons, the auctions' share of sales for Florida oranges has remained about constant, and there is some evidence that such a leveling off is occurring for other commodities as well. The increase in 1957-58 over the previous season appears to be a temporary situation caused by the sharp decline in production due to the freeze.

Among deciduous fruits, there has been a pretty steady decline in auction sales of apples and pears since 1939 (fig. 4). The proportion of California apricots sold through the auctions remained approximately constant from 1939 to 1957, and there has been only a slight decline in auction sales of California freestone peaches. Auction sales of California plums and grapes did not begin to decline until after 1948.

SALES OUTLETS

The declining sales volume of the auctions has not brought with it a radical change in the type of buyer coming to them. The auctions have continued to serve a clientele which was itself declining in importance in the produce marketing picture. Nearly three-fourths of the sales of the auctions were to

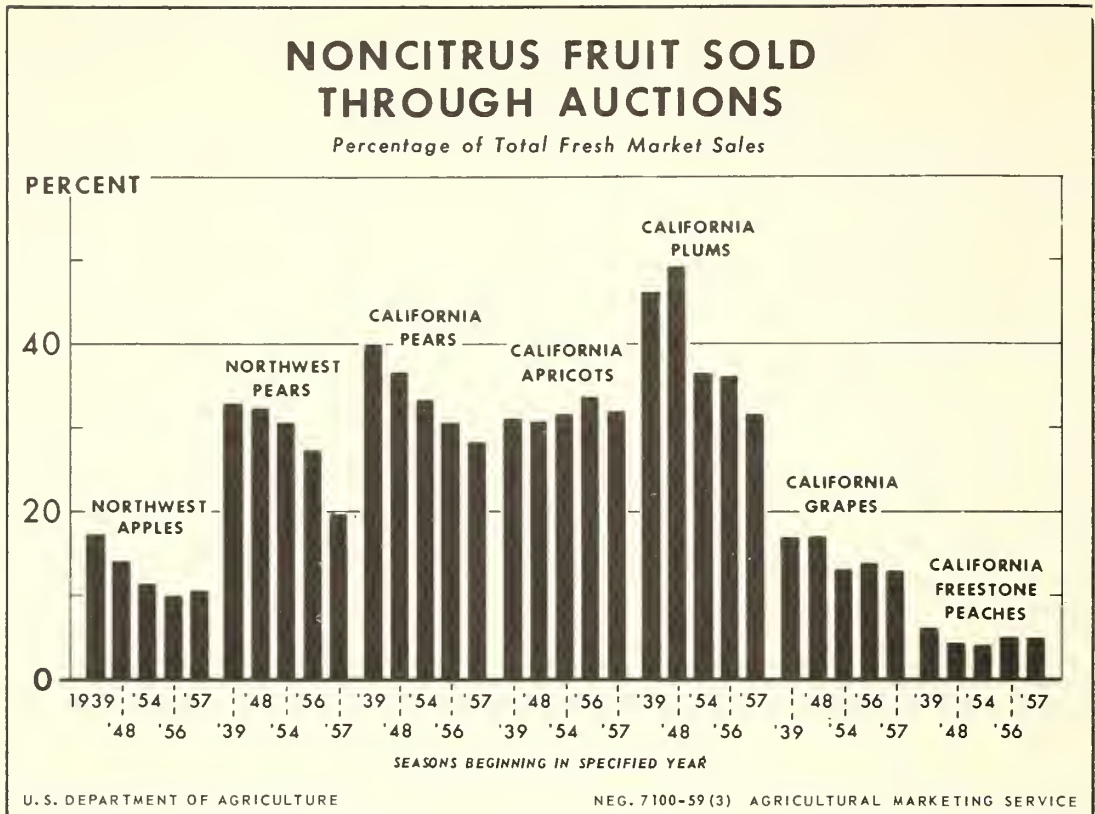


Figure 4

wholesale handlers, both in the mid-thirties and in 1956 (table 2). There was a modest increase in the share going to retail handlers and a modest decline in sales to brokers with unknown principals--most of whom were probably buying for out-of-town customers.

Jobbers were the largest single group of buyers, taking 60 percent of the sales value in 1956. This probably represents a small decline from the proportion taken in 1934-35, but the decline cannot be measured precisely since the classification used in the earlier period did not include as many types of handlers as that used in 1956. Sales to service wholesalers probably increased fairly sharply in line with the increase in this type of business in recent years. Wholesale grocers also increased their purchases sharply, although the total is still small, as more of them widened their line to include produce. Truck jobbers--jobbers who operate from the cab of a truck rather than from a store--handled about the same proportion in both periods.

Both chain and independent grocery stores increased their shares of purchases, while that of specialty fruit and vegetable stores declined sharply. These shifts reflect similar changes in the structure of retail food marketing, including the growth of the supermarket and the decline of specialty food stores.

Table 2.--Sales of terminal fruit auctions to different classes of customers, 1934-35 and 1956

Type of customer	1934-35	1956
	Percent	Percent
Wholesale handlers:		
Jobbers.....	70.5	59.8
Carlot receivers.....	* <u>1</u> /	1.2
Service wholesalers.....	*	7.7
Truck jobbers.....	3.3	3.3
Merchant truckers.....	*	.2
Wholesale grocers.....	.2	1.3
Total.....	74.0	73.5
Retail handlers:		
Chain stores.....	9.5	11.3
Independent retail grocery stores..	2.3	3.4
Specialty fruit and vegetable stores.....	2.5	.8
Peddlers and pushcart operators....	.7	.6
Restaurants and institutional outlets.....	*	1.4
Total.....	15.0	17.5
Buying brokers (principal unknown).....	11.0	9.0
Grand total.....	100.0	100.0

1/ Asterisk indicates figures were not reported separately in 1934-35.

DIRECT BUYING

Almost all large retail organizations find it to their advantage to purchase a large portion of their fruit and vegetable supplies directly from shipping point. By so doing, they secure certain advantages for themselves which they feel are not available to them if they buy all of their supplies locally. These averages include advance assurance of adequate supplies to meet anticipated needs, greater possibility of quality control through selection of sources and, in some cases, inspection at shipping point, and reduced costs through elimination of handling at the terminal market.

At times there are some disadvantages associated with direct buying. Perhaps the most important of these is the situation in which an organization

buying direct sometimes finds itself when it has bought its supplies at shipping point and the price drops sharply while they are in transit. Then its competitors in the consuming area are able to buy comparable produce at lower prices on the terminal market, putting the direct buyer at a competitive disadvantage. In some cases, arrangements have been worked out whereby the seller protects a direct buyer against price drops during, say, the ensuing 10 days.

There has been a substantial growth in the share of fruits and vegetables bought direct by corporate chains, voluntary and cooperative chains, and processors of fruits and vegetables such as potato chippers and pie bakers. We do not have a precise measurement of the change at present, although work under way in the Agricultural Marketing Service should provide better figures in the near future. Some rough estimates indicate that direct purchases by corporate chains in 17 major markets have increased from about 15 percent of total receipts in 1936 to perhaps 30 percent today.

The large national chains generally buy direct from shipping point, using their own salaried buyers. The large regional chains also are direct buyers in most cases, but they generally operate either through arrangements which their roving fieldmen make with shippers or through buying brokers. Large local chains are frequently direct buyers, generally purchasing through buying brokers although a few have standing arrangements with selected shippers. Smaller local chains generally rely on terminal brokers or wholesalers for their supplies. In a number of cases they utilize the facilities of a wholesaler who, in effect, operates a produce department for them on a fee basis. Some smaller chains have found it advantageous to buy a few items such as potatoes, onions, and citrus direct from shipping point, while their purchases of other items are made at the terminal markets.

All types of chains buy some produce at the terminal markets to supply fill-ins when sales exceed the amount bought direct and to supply small-volume items which cannot be conveniently or economically purchased direct. At times they may also find that supplies bought direct do not measure up to the anticipated quality and they may sell them locally and buy other produce. Most chains also buy fairly substantial quantities of nearby produce directly from selected larger producers with whom they have developed satisfactory arrangements over a period of years. This produce is usually delivered directly to the chain warehouse by the grower.

The large chains have been buying direct from shipping point since the 1920's. The growth in direct buying is chiefly due to the increasing share of total business done by retail organizations which have "grown up" to a size which warrants their going into direct purchasing. Sales of chain organizations of a size usually associated with direct buying have grown from approximately 20 percent of total food store sales in 1939 to 30 to 35 percent today. Voluntary and cooperative groups handling produce have also increased their sales rapidly. The share of all such groups in the retail food business has increased to perhaps three-fourths of the total independent food store sales and the proportion handling fresh fruits and vegetables also appears to have risen sharply.

The rising tempo of mergers and acquisitions among retail food chains in recent years shows no sign of abating. The drive for expansion--traditional among American businesses--appears to be very strong in the retail grocery business. It is quite likely that the share of business handled by firms large enough to buy fresh fruits and vegetables economically direct from shipping point will continue to increase. However, there is an upper limit beyond which it cannot easily pass.

Generally speaking, the institutional outlets -- restaurants, hotels, in-plant feeding facilities, hospitals, and similar users -- are not well adapted to direct buying. Except for a few restaurant chains, the volume of fresh produce they use is not large enough to warrant direct buying. The institutional market represents about 15 to 20 percent of the total food market and the proportion may increase somewhat with higher income levels and more eating out.

The supermarket cannot economically serve the entire home consumption market. The neighborhood grocery store, the superette and the fruit and vegetable specialty store each have a role from which they cannot easily be displaced. The little store which is open early and late and which is conveniently located has a virtual monopoly of certain types of purchases where convenience is the most important factor -- the quick trip to the store for a loaf of bread and a bottle of milk, for instance. In the built-up sections of the cities, there is little or no room for supermarkets and the superette, or bantam supermarket, performs the general food distribution function. The superette can also perform part of the convenience function of the corner grocery store in suburban areas.

The superette is adapted to group operation, both by corporate and voluntary chains. Several major chains are building superettes in areas such as Manhattan, while new chains of superettes have been organized in cities such as Chicago, Jacksonville, and in several Texas areas.

The specialty fruit and vegetable stores cater to a fairly limited market which they are holding quite well. Their share of retail store sales of fresh fruits and vegetables increased slightly from 1948 to 1954, after dropping sharply during the war and early postwar years.

Even if we were to assume that almost all of the supermarket and superette business eventually would be handled by either corporate or voluntary groups, which buy perhaps 80 percent of their produce direct, there is still a market for 40 to 50 percent of all fruits and vegetables through the terminal markets, including the fruit auctions. This is in no sense a prediction. It merely indicates the existence of a floor beyond which it is unreasonable to assume that terminal market business will decline.

The terminal market still has a number of functions to perform, including furnishing supplies to:

- (1) The institutional trade.

- (2) Unaffiliated independent grocery and specialty fruit and vegetable stores.
- (3) Small corporate and voluntary groups which cannot efficiently operate their own produce warehouses.
- (4) Large chains, with fill-ins and small-volume, specialty items.

It also has the function of surplus-disposal and adjustment of prices and supplies among markets, providing a home for the supplies which are not bought at shipping point. The function of the terminal markets in price-determination, in which the auction played a major role, is already shifting to the shipping point and may be expected to do so even more.

AUCTIONS AS SPECIALTY SELLERS

In many ways, the fruit auctions are better adapted to sale of high-valued specialty items than to the sale of large quantities of standardized fruit. Increasingly, this is the type of business the auctions are doing. Four deciduous fruits are sold almost exclusively through the auctions in cities where these facilities are available (table 1). These are all small quantity items and relatively high-valued. The advantages of direct buying are not nearly so great as for, say, Northwestern apples or pears, which are purchased in carload lots and carried as standard items in the produce department of nearly every supermarket in the country.

Within commodity groups such as Northwest apples, auction sales of the higher-valued items are holding up better than those of the standard items. Golden Delicious apples brought nearly \$2 per box more on the auctions during the 1957-58 season than any other variety -- and 23 percent of the production was sold through the auctions. The next highest share for auction sales was for Delicious, including the fairly high-priced Red Delicious.

This picture is probably clearest for Florida citrus. Fruit from the Indian River section along the east coast brings fairly substantial premiums over that from the Interior and a much higher proportion is sold through the auctions. Almost without exception, the higher the price for an item the higher the proportion which is sold at auction. In grapefruit, for instance, during the 1957-58 season, Interior white seeded fruit averaged \$3.06 per box at auction with only 3.7 percent of interstate shipments being sold at auction. Interior pink seeded grapefruit sold at an average price of \$3.76 per box and 12 percent was sold at auction.

Comparable types of grapefruit from the Indian River section brought over \$1 per box more than Interior fruit, with 17 percent of the white seeded and 58 percent of the pink seedless being sold through the auctions.

Auction sales of lower-valued fruit are declining much faster than those of the higher-priced items. In the past decade the share of lower priced Florida citrus items sold at auction declined by one-fifth to one-third.

In addition, the proportion of higher grade fruit of a given type sold at auction is somewhat higher than for total shipments. For instance, in 1957-58 from 40 to 45 percent of Indian River oranges graded No. 1 Golden -- the highest priced grade -- but auction sales ran from 60 to 65 percent No. 1 Golden. The differences for Interior fruit were not as marked, but in almost every case the proportion of the top grade was higher in auction sales than in total shipments.

THE PLACE OF THE AUCTIONS IN A CHANGING MARKETING SYSTEM

The fruit auctions developed as the major distributors of deciduous fruits from the West Coast and of citrus fruit. In 1930, they handled 84 percent of the citrus fruit in auction cities and nearly as high a percentage of western deciduous fruits. They were the mass distributors of these fruits at the wholesale level. They maintained this position fairly well during the 1930's, although changes were beginning to take place in the marketing system around them which, in the post-World War II period, were to bring about a major change in the role of the auctions.

The auction cities' share of the national market declined and direct buying by corporate and voluntary chains increased markedly, mostly because of the increase in the number of retail organizations large enough to take advantage of direct buying.

Auction sales declined from a third of all citrus and 10 percent of all deciduous fruit sold fresh in 1937 to 15 percent of the citrus and 6 percent of the deciduous fruit in 1957. They sold about half of the citrus fruit and western deciduous fruit received in the auction cities in 1956-57.

A portion of this volume was maintained by the decision of the major supplier of California citrus to sell to wholesalers and jobbers only through the auctions in the auction markets. The effects of this policy in maintaining the sales volume of the auctions may be indicated to some extent by the experience of a major supplier of Florida Indian River citrus. For many years this organization maintained a policy of selling only in the terminal markets, either through the auctions or through brokers and commission merchants in cities where there were no auctions. In 1951, this policy was changed and they began selling f.o.b. shipping point as well as at the terminal. In 6 years 40 percent of their total sales were on an f.o.b. basis. A similar policy change on the part of their California counterparts could have results of the same type and scope.

The auctions are becoming more and more specialty distributors rather than mass distributors. Sales of higher-valued fruits are holding up much better than those of lower-priced, large-quantity items. The attractions of direct buying by chainstores, wholesalers and others are much greater for the large-quantity commodities. The auctions seem well suited to the sale of imported fruit--most of it from Chile and Argentina--and the New York City auctions will probably maintain the business in these commodities.

The share of the produce volume bought directly from shipping point by retail groups and others can be expected to increase somewhat further, but it will probably reach a ceiling at perhaps 50 to 60 percent of the total market. The place of the terminal market in supplying the remainder of the market -- the institutional trade, small grocery stores, specialty fruit and vegetable stores and fill-in and specialty items for the chain stores -- seems secure in the foreseeable future. The share handled by the fruit auctions will probably decline as direct buying increases, but should level off when the ceiling is reached.

A corollary of the changed role of the auctions as sales agencies for fruit is found in their role in price making. During earlier periods, when most fruit was sold through the auctions, auction sales set the price level for the entire crop since supply and demand conditions on the auction markets were generally representative of those throughout the country. As the auctions became less important in the mass distribution of fruit they became less representative of price-making conditions over the entire Nation, and the price-formation function has gradually shifted back to the shipping-point level. This shift has created problems and will probably continue to accentuate them, since shipping point markets do not provide the convenient locus of supply and demand forces in one location at one time which was provided by auction markets. Shipping point markets are spread out over much larger areas--buyers and sellers are physically separated, perhaps by several thousand miles--so the price-making function has become more diffused.

The market news problem of finding out what the price is becomes much more difficult, and a need develops for many more kinds of market information so that buyers and sellers--who are much more isolated than before--can make better decisions as to market conditions and the appropriate prices at which to transact their business. Many of the adjustments to these changed conditions have already been made. Others will be called for in the years immediately ahead.

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